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ABSTRACT

This summary contains instructors' discussions of an independent research report which evaluated the compensatory education program at El Paso Community College, Colorado Springs, Colorado. Because of open admissions policies, many students enter this college without the prerequisite basic skills necessary to understand their texts. Over 75% of entering students have been found to need one or more reading courses in order to successfully pursue college-level courses where the textbook may be written at an eleventh to thirteenth grade reading level. Over 35% of the entering students have been found to read at only sixth to eighth grade reading level. Similar deficits are found in English and mathematics. One important conclusion discussed is that students with a need for compensatory courses do become more competitive in the college level courses after taking skills courses. A random sampling of students who needed but did not take skills courses showed a 73% failure in college freshman English and an 80% failure in a comparable level of math, while those who took skills courses because of their placement scores showed a 29% failure in college English and a 20% failure in math. (MKM)

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El Paso Community College
Colorado Springs, Colorado

Dr. Donald W. McInnis, President

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A Summary Report

the Second Chance

EPCC's program to meet the needs of disadvantaged students through remedial-compensatory education

John Rodwick
Michael J. Grady
February 1, 1976

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Cover photo: Molly Sumner, math instructor, skills department.

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FOREWORD

I am pleased to present this report of the findings of the recent study done at El Paso Community College within our Skills Program. The development of "remedial" programs in the contemporary community college has produced an overwhelming need for documentation of our efforts. Produced at the suggestion of those associated with the El Paso Community College Skills Program, this document will provide significant information and statistics in this area.

I would like to thank all those who contributed time and effort in the research as well as in the production of this document. It is through such efforts of dedicated professionals that we will better serve generations to come.

It is my hope that this document will produce added support within the state of Colorado for meeting the needs of adults who have, for one reason or another, been unable to receive those skills so necessary for success in our society.

Donald W. McInnis, President
February 1, 1976

PREFACE

With its beginnings in 1969, El Paso Community College (EPCC) wrote into its statements of purpose a goal allowing any student who could benefit from instruction an opportunity to enter its open door. Consistent with that purpose, the college took upon itself the responsibility of providing a program of remedial-compensatory education for those students requiring preparatory work in English, mathematics, and reading as prerequisites to transfer and career programs.

In the past six years the program has grown from one reading instructor to over twenty full- and part-time faculty, teaching every level of those elementary and secondary basic learning skills. The Skills Studies faculty prides itself in working with over 2,000 different persons every academic year in a program, one of Colorado's largest, that offers its students a wide variety of teaching methods and approaches. Even though the program has been successful in terms of student-teacher satisfaction and continuous enrollment demands, only minimal effort has been expended attempting to show with significant objectivity the real need for remedial-compensatory education at EPCC and the effect of this program on transfer and career program courses.

The stimulus to review this program came in late June 1975 when EPCC's President, Don McInnis, received a memorandum from Bill Adrian, Deputy Director for the Colorado Commission on Higher Education (CCHE). The letter read, in part:

> The Commission has been directed by the Joint Budget Committee (JBC) to require institutions to identify remedial instruction as a separate program distinct from resident instruction in budget requests for 1976-77. It is important for CCHE to understand the area of remedial instruction as implemented by the public postsecondary educational institutions in Colorado and to be fully informed on types of remedial instruction.

The letter went on to note that Lila Engdahl, a University of Colorado doctoral student and former Community College of Denver council member, would be gathering baseline information on remedial instruction as part of a CCHE internship. Her report was completed in September, and portions are referenced in this study.

Although the Engdahl (1975) report, as an overview of remedial instruction in Colorado's institutions of higher education, will be valuable to members of CCHE and Colorado's Joint Budget Committee (JBC), it remains the responsibility of each Colorado institution of higher education to describe in greater detail its compensatory programs and to select means of determining program need and effectiveness as a way of demonstrating reasons for continued existence and funding.

At El Paso Community College, we felt it was important not only to develop our own research model and subsequent study but also to coordinate our efforts with other Colorado community colleges. In mid-July, 1975, a letter was sent to the other ten, two-year colleges inviting them to meet at Arapahoe Community College on August 5 "...to engage in discussions relative to meeting the request identified by CCHE and the JBC and show that remedial instruction is a justifiable and integral part of our community college program." Only five colleges sent representatives. Of those, only El Paso Community College demonstrated a commitment of personnel and budget to conducting the needed research.

This study reflects that commitment. It also reflects the cooperation of President McInnis and Dean Dale Traylor who recognized the urgency of this study and authorized hiring an independent research firm who could conduct the data analysis section of this study without prejudice. The cooperation from EPCC staff--Wilma Newcomer, Perry Littleton, Paul

Le Beau, Helen Bagherian, Mary Traylor, Willis Belford, Helen Anderson, Sharon Burt, Eura Carter, Robert Chavez, Sharon Franklin, and Gloria Burkhart--was welcomed and appreciated. Special thanks are due to Louis Coffin and Dale Watts, both from the University of Colorado, Colorado Springs, whose data processing assistance was a substantial contribution to this study. The special efforts of Skills faculty--Katherine Anderson, Joyce Armstrong, and Molly Sumner--must be likewise noted,for their willingness to read the technical volume and write the Summary Report was deeply appreciated. Finally, the assistance and support of the Skills faculty constituted the encouragement toward excellence that this study represents.

John Rodwick, Ph. D.
Chairman, Skills Studies Department

Michael J. Grady, Ph. D.
Vice President, Grady Research Associates

THE SUMMARY

The study answers a legislative request for information on EPCC's provisions for post-secondary remedial instruction. The staff of the Skills Department is so enthusiastic about the successes of the program as to be biased, so an independent research firm conducted the study and demonstrated that remedial instruction is a necessary and effective part of the community college program. The need for such instruction, the cost, the success of the program, and the reliability of the placement tests are the prime concerns. In this summary, references to pages of the study itself are given in parenthesis so that verification and amplification may be readily obtained.

At EPCC, entering students are required to take placement tests in mathematics, English and reading before counseling and registration for classes. The results of these tests suggest that most of our entering students (98% in math, 70% in English and 81% in reading) are not functioning at the college level. These deficiencies prevent student access to transfer and occupational programs. For example, electronics students must master basic arithmetic and algebra before successfully studying electronics.

The need for remedial instruction is evident. Consistent with national studies indicating that 20% of U.S. adults are functionally illiterate, (p. 34) state and local investigations show that over 225,000 adults in Colorado suffer from such illiteracy, (p.35). These conditions are reflected in placement scores of students entering colleges and universities, with widespread deficiencies becoming obvious, (p. 34-35). The trend is magnified at community colleges, because this type of school tends to attract the disadvantaged, older (average age 32), high-risk student. At El Paso

Community College specifically, placement tests reveal that "most students entering EPCC require some compensatory or refresher work in English, mathematics, and reading before or while taking courses in the program of their choice. For example, whereas 43% of those taking the English placement test required some work in paragraph and some theme development---skills usually mastered in grades 10-12---21% needed Skills English to help them write basic sentences, and 1.3% needed help usually offered to students in grades K-5. Similar patterns are evident for reading and mathematics," (p. 15-17). Fifty-one per cent of the students taking the Mathematics Placement Test Battery need the basic arithmetic course material usually covered in grades K-8. Forty-seven per cent need high school level algebra, (p. 16). Concerning reading achievement, 37% of the entering students have a 6-8th grade reading level. Since most college textbooks have a vocabulary level and sentence structure requiring an 11-13th grade reading achievement ability, the majority (79%) of entering EPCC students need one or more reading courses in order to successfully pursue college-level courses.

Obviously, entering students do not have the skills necessary for success in their chosen field or program of instruction. As disheartening as these figures are, the situation is getting worse instead of better, both nationally (pp. 7, 36-39) and locally (p. 56). What's more, we have been increasingly falling short of supplying students' needs for remedial classes. For example, in 1969-72, 51% of the students sampled required one or more compensatory English courses, as opposed to 70% exhibiting the same need in 1972-75. In math, 86% needed compensatory math in 1969-72, while 98% needed it in 1972-75. In reading, the contrast is 64% need in 1969-72 and 81% in 1972-75, (p. 59). Since only approximately 40% of the identified needs are being met it is recommended that the Skills Department

be funded to serve more students in need of reading, mathematics, and English pre-college skills, (p. 5).

If classes to upgrade these skills are not provided by the Community College, the student must either be turned away or allowed to fail. That is, the "open door" policy must be abandoned, resulting in descrimination against the disadvantaged, or the open door will become the "revolving door," with the waste of money and time incurred by that method of processing students out of school. Either of these policies would belie the community college concept, and result in misrepresentation to the public of the purpose of the community college, and waste the allocated funds, (p. 32-35).

The Skills Department has demonstrated that students with a need for compensatory courses in English, math and reading become competitive at the 100-level courses in these areas after removing their deficiencies, (p. 110). A random sampling of students who needed but did not take Skills courses showed a 73% failure in college freshman English and 80% failure in a comparable level of math; while those who took Skills courses because of their placement scores, showed a 29% failure in college English and 20% failure in math, (p. 24-25). Thus, in spite of marked deficiencies upon entering, those students who complete needed courses in basic skills may enter and succeed in programs in which they otherwise would be much more likely to fail. These students achieve at least as well as those who had adequate preparation to enter regularly designated career and college-level studies.

On the average, each full time student in remedial courses costs $840 per year, as compared with $1341 per student in the college as a whole, (p. 63). The Skills Department educates approximately 8 FTE students

for the cost of educating only 5 in the other college areas (p. 112). In the light of the success achieved by remedial courses, this would seem to be an exceptional bargain in education dollars.

If EPCC remains committed to the open door policy, it must be prepared to accurately define and prescribe remedies for educationally deficient students. Thus if a student's academic career is based on the outcome of these tests, we need to know exactly how valid and reliable they are.

The study was designed to determine the reliability (concerning consistent results of the tests) and validity (especially whether scores are predictive of success in skills and college-level courses). A random sample of 75 students from each of the years 69-75 was used for reliability studies, and 1400 students were randomly selected for the validity study.

The reading test given is the nationally prepared SRA Diagnostic Reading Test which measures reading speed, comprehension, and vocabulary. It proves to be highly reliable (reliability coefficient exceeded .8) (p. 100). The results show entering EPCC students to be in the lowest fifth to sixth of the national population of entering freshmen with respect to comprehension and vocabulary (p.25). These average scores show that an overwhelming majority of entering students require some form of remedial reading assistance to understand college texts.

The math placement exam is actually a battery of four locally prepared tests corresponding to EPCC course levels. (Test 1 covers the arithmetic concepts of whole numbers, fractions, decimals and percent. Test 2 covers beginning high school algebra and Test 3 covers second year algebra. Test 4 covers college level mathematics.) Again reliabilities calculated to be over .9 show it to be a highly reliable instrument. (p.48) It may be

noted that from July 1974 to June 1975 there were 4700 students tested and 51% were not competent with the basics of arithmetic (whole numbers, fractions, decimals and per cent). Only 2% of that group were ready for our college level Math 100. (p. 16)

English placement is determined by evaluation of spelling, sentence and paragraph structure in a theme written by the entering EPCC student. Only 30% of entering students were judged to have sufficient writing skills to enter college level English courses. (p. 15) The evaluations of these themes have not been quantified so no reliability figure could be established. However the faculties of the Communications/Humanities and Skills departments have mutually agreed on the criteria for placement and have been satisfied with placement results. One suggestion from the study is that the evaluation of student themes be quantified so further studies of reliability can be undertaken.

Reading and English tests prove to be very valid in predicting student success. (p. 101) The math test has moderate predictability which could be improved by replacing the battery of four tests with one fifty item test. That change is being made.

When placement scores and other admission data were correlated with grades earned in Skills and college level courses it was shown that:

-variables such as years since high school graduation, formal education at admission and sex of the student significantly enhance success predictions. (104.105)

-fewer women than men entering EPCC required compensatory courses, (p. 82).

-while Black, Native American and Spanish surname students scored lower on placement tests than other students, most of those differences disappear after completion of needed Skills courses, (p. 89 & 92).

Because of the potential for career and life-time improvement to pre-

viously disadvantaged members of society, it seems vital to offer this second chance. It would appear far better to use tax dollars to pay for remedial education providing job skills than to pay the even greater price in less productive citizens.